



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,159	02/28/2002	Evren Eryurek	30203/38231	2668

4743 7590 11/13/2003

MARSHALL, GERSTEIN & BORUN LLP
6300 SEARS TOWER
233 S. WACKER DRIVE
CHICAGO, IL 60606

EXAMINER

BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 11/13/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,159

Applicant(s)

ERYUREK ET AL.

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: reference number 60 in figure 2. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 10 is objected to because of the following informalities: "a desired use indices" should be "a desired use index". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2121

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 11-18, 23-37 and 43-45 are rejected under 35

U.S.C. 102(b) as being anticipated by USPN 5,515,266 to Meyer.

As per claim 1, the Meyer reference discloses a method of automatically taking corrective measures within a process plant, wherein the process plant includes a plurality of devices, the method comprising: receiving data pertaining to the status of a device (see figures 4-6 and column 5 lines 40-50, "files 20, 22" and column 6 lines 9-15, "diagnosis module 26"); automatically generating an order in response to a detected problem with the device (see figures 4-6 and column 5 lines 40-50 and column 6 lines 20-28, "analysis module 28"), wherein the detected problem is based on the data pertaining the status of the device ("diagnosis module 26") and the order relates to taking one or more corrective measures to solve the problem ("analysis module 28"); and communicating the order (see figures 7, 8 and column 8 lines 6-11, "networking 350").

As per claim 2, the Meyer reference discloses receiving data comprises receiving diagnostic information pertaining to the device (see

Art Unit: 2121

figures 4-6 column 5 lines 40-50, "files 20, 22" and column 6 lines 9-15, "diagnosis module 26").

As per claim 3, the Meyer reference discloses receiving data comprises receiving a maintenance request to service the device (see column 7 lines 3-8, "repair-support functions" and column 8 lines 56-61, "maintenance person is called" and column 9 lines 30-34).

As per claim 4, the Meyer reference discloses receiving data comprises receiving a notification of a current problem with the device (see column 6 lines 28-40, "type of and expenditure for the intervention").

As per claim 5, the Meyer reference discloses receiving data comprises receiving a notification of a predicted future problem with the device (see column 5 lines 40-45, "questionable").

As per claim 11, the Meyer reference discloses further comprising determining the status of the device (see column 5 lines 40-50, "operating condition") based on at least one of process control data (see column 4 lines 34-45, "production sensors, quality sensors") pertaining to the device and maintenance data pertaining to the device (see column 5 lines 46-50, "stress function" and column 6 lines 19-24, "analysis module 28").

As per claim 12, the Meyer reference discloses generating an order comprises generating a work order for performing maintenance related to solving the problem with the device (see column 6 lines 9-25, "diagnosis module 26, analysis module 28"), and communicating the order comprises communicating the work order to one or more maintenance personnel capable of performing the maintenance (see column 8 lines 6-11, "networking 350" and lines 56-31, "operator interface 592").

As per claim 13, the Meyer reference discloses generating an order comprises generating an order for a part related to solving the problem with the device (see column 7 lines 4-8, "necessary spare parts"), and communicating the order comprises communicating the order for the part to a supplier of the part (see column 8 lines 53-56, "spare part management").

As per claim 14, the Meyer reference discloses generating an order comprises generating an order for a replacement device (see column 7 lines 4-8, "necessary spare parts").

As per claim 15, the Meyer reference discloses communicating the order comprises communicating the order via the internet (see column 4 lines 12-21 and column 7 lines 12-16, "suitable protocol").

As per claim 16, the Meyer reference discloses communicating the order comprises communicating the order via a telephone communication link (see column 4 lines 12-21 and column 7 lines 12-16, "suitable protocol").

As per claim 17, the Meyer reference communicating the order comprises communicating the order via a wireless communication link (see column 4 lines 12-21 and column 7 lines 12-16, "suitable protocol").

As per claim 18, the Meyer reference generating an order comprises scheduling an order to be fulfilled prior to failure of the device (see column 9 lines 37-42, "reasonable planning ahead").

As per claim 23, the Meyer reference discloses receiving data comprises receiving data pertaining to one of a field device and field equipment (see column 3 lines 58-61, "spinning machine 580, sensory mechanisms").

As per claim 24, the Meyer reference discloses receiving data comprises receiving data pertaining to the status of one of a two-wire device, a three-wire device, a four-wire device, a wireless device, a device having a processor, a variable speed driver, a controller, a multiplexer, rotating equipment, an actuator, power generation equipment, power distribution equipment, a transmitter, a sensor, a control system, a

Art Unit: 2121

transceiver, a valve, a positioner, a switch, electrical equipment, a server, a hand held device, a pump, an I/O system, a smart field device, a non-smart field device, a HART protocol device, a Fieldbus protocol device, a PROFIBUSOO protocol device, a WORLDFIP® protocol device, a Device-Net® protocol device, a AS-Interface protocol device, a CAN protocol device, a TCP/IP protocol device, an Ethernet device, an internet-based device, and a network communication device (see column 3 lines 29-38, "spinning mill", lines 58-61, "spinning machine 580, actuator mechanism 584, sensory mechanism of the machine 586").

As per claim 25, the Meyer reference discloses a system to be used in a process control environment for automatically taking corrective measures, wherein the process control environment includes a plurality of devices, the system comprising: a computer readable memory (see column 5 lines 25-28, "storage unit 594" and column 5 lines 40-64, "files 20, 22"); a first routine stored on the computer readable memory and adapted to be executed on a processor to receive data pertaining to the status of a device (see column 5 lines 55-64, "computer 24" and column 6 lines 9-15, "diagnosis module 26"); a second routine stored on the computer readable memory and adapted to be executed on a processor to automatically generate an order in response to

Art Unit: 2121

the detected problem with the device (see column 5 lines 55-64, "computer 24" and column 6 lines 9-15, "analysis module 28"), wherein the order relates to taking one or more corrective measure to solve the problem (see column 7 lines 4-7, "file 40"); a third routine stored on the computer readable memory and adapted to be executed on a processor to communicate the order (see column 8 lines 6-11, "networking 350").

As per claim 26, the rejection of claim 2 is incorporated and further claim 26 contains limitations recited in claim 2; therefore claim 26 is rejected under the same rationale as claim 2.

As per claim 27, the rejection of claim 3 is incorporated and further claim 27 contains limitations recited in claim 3; therefore claim 27 is rejected under the same rationale as claim 3.

As per claim 28, the rejection of claim 4 is incorporated and further claim 28 contains limitations recited in claim 4; therefore claim 28 is rejected under the same rationale as claim 4.

As per claim 29, the rejection of claim 5 is incorporated and further claim 29 contains limitations recited in claim 5; therefore claim 29 is rejected under the same rationale as claim 5.

As per claim 31, the rejection of claim 12 is incorporated and further claim 31 contains limitations recited in claim 12; therefore claim 31 is rejected under the same rationale as claim 12.

As per claim 32, the rejection of claim 13 is incorporated and further claim 32 contains limitations recited in claim 13; therefore claim 32 is rejected under the same rationale as claim 13.

As per claim 33, the rejection of claim 14 is incorporated and further claim 33 contains limitations recited in claim 14; therefore claim 33 is rejected under the same rationale as claim 14.

As per claim 34, the rejection of claim 15 is incorporated and further claim 34 contains limitations recited in claim 15; therefore claim 34 is rejected under the same rationale as claim 15.

As per claim 35, the rejection of claim 16 is incorporated and further claim 35 contains limitations recited in claim 16; therefore claim 35 is rejected under the same rationale as claim 16.

As per claim 36, the rejection of claim 17 is incorporated and further claim 36 contains limitations recited in claim 17; therefore claim 36 is rejected under the same rationale as claim 17.

As per claim 37, the rejection of claim 18 is incorporated and further claim 37 contains limitations recited in claim 18; therefore claim 37 is rejected under the same rationale as claim 18.

As per claim 43, the rejection of claim 13 is incorporated and further claim 43 contains limitations recited in claim 13; therefore claim 43 is rejected under the same rationale as claim 13.

As per claim 44, the rejection of claim 23 is incorporated and further claim 44 contains limitations recited in claim 23; therefore claim 44 is rejected under the same rationale as claim 23.

As per claim 45, the rejection of claim 24 is incorporated and further claim 45 contains limitations recited in claim 24; therefore claim 45 is rejected under the same rationale as claim 24.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-10, 19, 38 and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,515,266 to Meyer in view of USPN 5,873,009 to Yamashita.

As per claim 6, the Meyer reference does not expressly disclose receiving data comprises receiving a use index representative of the status of the device.

The Yamashita reference discloses

(see column 6 lines 51-53, "The host computer H receives data originated from the device D ... manages the copiers collectively.")

(see column 7 lines 19-25, "... component PM call ... originating a maintenance call on a component-by-component basis.")

(see column 7 lines 43-46, "The count values in the device D are transmitted to the host computer H ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the list file and the operator interface taught by the Meyer reference to include the lifetimes and the reports taught by the Yamashita reference.

One of ordinary skill in the art would have been motivated to expand the listed contents/details of the list file with data concerning the lifetime of each employed component so that management of equipment/components was more efficient and to incorporate the reports into the operator interface so that other communication means could be supported.

As per claim 7, the Yamashita reference discloses a maintenance system receives the use index and automatically generating an order comprises automatically generating a work order based on the use index (see column 7 lines 22-30, "... originating a maintenance call on a component-by-component basis...").

As per claim 8, the Yamashita reference discloses generating a work order comprises determining the one or more corrective measures to solve the problem (see column 7 lines 47-55, "... component replacement report ... corresponding entry ... processed ... or that entry is deleted from the list." and column 8 lines 3-22, "... count value is compared with the corresponding threshold value registered in the host computer H ...").

As per claim 9, the Yamashita reference discloses further comprising displaying instructions for achieving a desired use index for the device (see column 6 lines 63-67, "... the contents of the database can be displayed on

Art Unit: 2121

the CRT ..." and column 7 lines 7-13, "... percent mark are displayed values ... remain column are displayed values ...").

As per claim 10, the Yamashita reference discloses displaying instructions for achieving a desired use index for the device comprises displaying instructions representative of the one or more corrective measures to solve the problem (see column 8 lines 9-23, "... component PM report in the urgency report list ... urgency report pop-up screen ... " and lines 39-45, "... components that are being used beyond their lifetimes are displayed with a mark in a listing ...").

As per claim 19, the Yamashita reference discloses further comprising tracking the status of the order (see column 7 lines 56-60, "... a component replacement report informing of the component replacement ... corresponding entry in the component urgency report list can be automatically deleted.").

As per claim 38, the rejection of claim 19 is incorporated and further claim 38 contains limitations recited in claim 19; therefore claim 38 is rejected under the same rationale as claim 19.

As per claim 42, the Yamashita reference discloses further comprising a fifth routine stored on the computer readable memory and

Art Unit: 2121

adapted to be executed on a processor to display tracking information relating to the status of the order (see column 7 lines 25-30, "... displays urgency report lists ...")

7. Claims 20-22 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,515,266 to Meyer in view of USPN 5,873,009 to Yamashita as applied to claims 6-10, 19, 38 and 42 above, and further in view of logical reasoning.

As per claim 20, the modified teachings of both the Meyer and Yamashita reference do not expressly disclose tracking the status of the order comprises receiving data pertaining to a report regarding the order; and receiving data pertaining to the date of the report.

However, it would have been logically to one of ordinary skill in the art to include timestamps in the list file and on the reports/display screens.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the list file taught by the Meyer reference to include a timestamp as a detail for each component on the component list and the reports taught by the Yamashita reference to include a timestamp.

One of ordinary skill in the art would have been motivated to include timestamps in the list file and on the reports/display screens to facilitate another aspect of management efficiency such as workflow turnaround or problem resolution.

As per claim 21, the modified teachings of both the Meyer and Yamashita reference do not expressly disclose receiving data pertaining to a report comprises receiving data pertaining to the location of the order.

However, it would have been logically to one of ordinary skill in the art to include location on the reports/display screens.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the reporting interface taught by the Meyer reference and the Yamashita reference to include location.

One of ordinary skill in the art would have been motivated to include location on the reports/display screens to facilitate another aspect of management efficiency such as ability to track service calls.

As per claim 22, the modified teachings of both the Meyer and Yamashita reference do not expressly disclose receiving data pertaining to a report comprises receiving data pertaining to the status of the order.

However, it would have been logically to one of ordinary skill in the art to include status on the reports/display screens.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the reporting interface taught by the Meyer reference and the Yamashita reference to include status.

One of ordinary skill in the art would have been motivated to include status on the reports/display screens to facilitate another aspect of management efficiency such as ability to track service call completion.

As per claim 39, the rejection of claim 20 is incorporated and further claim 39 contains limitations recited in claim 20; therefore claim 39 is rejected under the same rationale as claim 20.

As per claim 40, the rejection of claim 21 is incorporated and further claim 40 contains limitations recited in claim 21; therefore claim 40 is rejected under the same rationale as claim 21.

Art Unit: 2121

As per claim 41, the rejection of claim 22 is incorporated and further claim 41 contains limitations recited in claim 22; therefore claim 41 is rejected under the same rationale as claim 22.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to error/fault correction in general:

USPN 5,287,505 to Calvert et al.

USPN 5,809,437 to Breed

USPN 6,246,325 B1 to Chittipeddi

USPN 6,321,348 B1 to Kobata

USPN 6,411,678 B1 to Tomlinson, Jr. et al.

USPN 6,460,070 B1 to Turek et al.

USPN 6,557,118 B2 to Schleiss et al.

USPN 6,584,432 B1 to Holzinger et al.

USPN 6,587,879 B1 to Reynolds

USPN 6,643,608 B1 to Hershey et al.

Art Unit: 2121

US Pub No 2002/0133254 A1 to Elwood

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703.305.0282. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

cjb
November 6, 2003



ANIL KHATRI
SUPERVISORY PATENT EXAMINER